



Autism and education—Teacher policy in Europe: Policy mapping of Austria, Hungary, Slovakia and Czech Republic

Robin van Kessel^{a,*,1}, Paula Steinhoff^{a,1}, Orsolya Varga^b, Dagmar Breznoščáková^c, Katarzyna Czabanowska^{a,d,e}, Carol Brayne^f, Simon Baron-Cohen^g, Andres Roman-Urrestarazu^{a,f,g}

^a Department of International Health, Maastricht University Faculty of Health Medicine and Life Sciences, Maastricht, the Netherlands

^b Department of Preventive Medicine, Faculty of Public Health, University of Debrecen, Debrecen, Hungary

^c Faculty of Medicine, University Hospital of L. Pasteur, Slovakia

^d Department of Health Policy Management, Institute of Public Health, Faculty of Health Care, Jagiellonian University, Krakow, Poland

^e National Institute of Public Health, Warsaw, Poland

^f Institute of Public Health, University of Cambridge, Cambridge, United Kingdom

^g Autism Research Centre, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom

ARTICLE INFO

Keywords:

Autism
Education
Teachers
Human rights
Policy

ABSTRACT

Background: This report maps autism and special education needs (SEN) policies, alongside teacher responsibilities in the education of children with SEN in Austria, Hungary, Czech Republic, and Slovakia.

Methods and Procedure: A policy path analysis using a scoping review as an underlying methodological framework was performed.

Outcomes and Results: The end of communism and accession to the European Union were critical for the countries under study. They passed crucial policies after international policies and adopted a three-stream approach towards providing education: (1) special schools; (2) special classes in mainstream schools; or (3) mainstream classes. Special schools remain for children that cannot participate in mainstream schools. Teachers are given high levels of responsibility.

Conclusion and Implications: Changes in international guidance greatly impacted Austria, Hungary, Slovakia and the Czech Republic. The education systems aim for inclusion, though segregation remains for children that cannot thrive in mainstream schools. Teachers are pivotal in the education of children with SEN, more so than with typical children.

What this paper adds?

This paper continues on the policy mapping endeavour to investigate all 28 European Union Member States on their respective autism, education, and special needs policies by investigating Austria, Hungary, Czech Republic, and Slovakia. It specifically scrutinizes the responsibilities allocated to teachers in the education of children with special needs. It also adds to the general

Abbreviations: UN, United Nations; UDHR, Universal Declaration of Human Rights; CRC, Convention on the Rights of the Child; CRPD, Convention on the Rights of Persons with Disabilities; EU, European Union; SEN, Special Education Needs; EDUCAUS, European Consortium for Autism Researchers in Education; Czech, Czech Republic; MIPIE, Mapping the Implementation of Policy for Inclusive Education

* Corresponding author.

E-mail address: rjc.vankessel@alumni.maastrichtuniversity.nl (R. van Kessel).

¹ These authors contributed equally to this manuscript.

<https://doi.org/10.1016/j.ridd.2020.103734>

Received 12 February 2020; Received in revised form 30 June 2020; Accepted 5 July 2020

Available online 03 August 2020

0891-4222/ © 2020 The Author(s). Published by Elsevier Ltd.

understanding of how the values of international guidelines on disability, education, and inclusion are implemented in national policy.

1. Introduction

Autism refers to neurodevelopmental conditions usually present from early childhood onward that come along with challenges in specific areas such as communication, social interaction, repetitive behaviour, and distinct interests throughout life (Baron-Cohen, 2017). About 1% of the world population is on the autism spectrum with the sex ratio lying between 3:1 and 4:1 (Charman et al., 2017; Loomes, Hull, & Mandy, 2017). Over the last decades, autism diagnoses increased steadily. This increase has predominantly been linked to new screening and assessment tools but also to a greater awareness in the general population (Cervantes, Matson, & Goldin, 2016). In addition to mental health problems, such as anxiety and depression (Croen et al., 2015; Simonoff et al., 2008), other health conditions (e.g. epilepsy, gastrointestinal problems and immune dysregulation) are common comorbidities in autism (Gurney, Mcpheeters, & Davis, 2006; Lai, Lombardo, & Baron-Cohen, 2014), making it a significant public health challenge (Newschaffer & Curran, 2003).

Difficulties in social interaction, including showing empathy and sharing interests and feelings, have a great impact on the quality of life of people with autism (Baron-Cohen, 2017; Billstedt, Gillberg, & Gillberg, 2011; Lee, Harrington, Louie, & Newschaffer, 2008). One way of improving their quality of life and addressing inequalities they experience is to include them in society as much as possible. One crucial aspect that facilitates equal and inclusive participation in society is the fundamental right to education for people with disabilities (Roleska et al., 2018). This right was first mentioned by the United Nations (UN) in the Universal Declaration of Human Rights (UDHR) but its importance has developed and expanded since then (United Nations, 1948). The Convention on the Rights of the Child (CRC) guarantees the right of children with disabilities to fully and equally participate in society and the right to free and equal education (United Nations, 1989). These rights were later emphasised by the Salamanca Statement (United Nations Educational Social & Cultural Organisation, 1994) and the Convention on the Rights of Persons with Disabilities (CRPD) (Convention on the Rights of Persons with Disabilities, 2006). The CRPD has been ratified by 181 countries, including all 27 European Union (EU) Member States, as well as the United Kingdom (United Nations Department of Economic & Social Affairs, 2020). It ensures the right to inclusive education and lifelong learning. In order to guarantee that people with autism can achieve their full potential in society, adequate lifelong education is paramount (Hehir et al., 2016).

A means to achieve this is through inclusive education (Sumi, Marder, & Wagner, 2005). Special educational needs (SEN) education used to be provided by either separating children with SEN in special schools or integrating them in the mainstream education facilities (Hehir et al., 2016; Norwich, 2002). The ratification of the Salamanca Statement initiated a shift from integrative to inclusive education on a global level. The difference between integrative and inclusive education lies in the perception of diversity. Within an integrative approach, students are schooled in mainstream schools but receive special education and are therefore not an equal member of the school community (Hehir et al., 2016; Norwich, 2002). In contrast, inclusion emphasises the benefits from diversity and relates to the social inclusion of all people in society (Costello & Boyle, 2013). In order to achieve a change in perception, a societal shift from integrative towards inclusive thinking is necessary (Monsen, Ewing, & Kwoka, 2014; Norwich, 2002). Inclusive education is provided in mainstream schools, and while accounting for their individual needs and abilities, students with and without SEN are educated together (Boyle, Topping, & Jindal-Snape, 2013; Lynch & Irvine, 2009). Both students with SEN and their typical peers benefit from inclusive learning (Eldar, Talmor, & Wolf-Zukerman, 2009; Osborne & Reed, 2011; Ruijs & Peetsma, 2009) and inclusive education is especially helpful for children with autism (Harrower & Dunlap, 2001; Lynch & Irvine, 2009). However, in order to attain successful inclusive education, the structures of the school and learning environment have to be adapted (Hehir et al., 2016; Norwich, 2002). The CRPD states the need for appropriate teacher education and the provision of support facilities which emphasises its importance (Convention on the Rights of Persons with Disabilities, 2006). In addition, a positive attitude from teachers towards inclusion is indispensable (Boyle, Scriven, Durning, & Downes, 2011; Leatherman & Niemeyer, 2005), since they have to realize inclusion policies.

Since health and social policy are part of the EU Member States' sovereignty (Treaty on the Functioning of the European Union, 2009), legislation and provision of inclusive education differs considerably across the EU. As such, it is important to identify education policies in the EU in order to ensure inclusive education for every child. The objective of this paper is to contribute to the policy mapping project of the European Consortium for Autism Researchers in Education (EDUCAUS) (EDUCAUS, 2019a), which aims to map all policies relevant for the education of people with autism in all 28 EU Member States (EDUCAUS, 2019b).

This paper maps autism policies of Austria, Hungary, Slovakia and the Czech Republic (henceforth Czech). Moreover, it (1) investigates the interdependences between the current and past international, EU and national policies; (2) identifies critical junctures and patterns in the policy-making process; and (3) analyses the role of teachers within the different autism policies. Aside from expanding the scope of the EDUCAUS policy mapping project, an analysis of these countries is interesting for various reasons. These four countries are relatively small (Austria 8,8 million inhabitants; Hungary 9,8 million; Czech 10,6 million; and Slovakia 5,4 million), which creates an interesting contrast when comparing these countries to the analysis of small EU Member States that was done previously (van Kessel et al., n.d.) [in press]. Additionally, the countries under study (apart from Austria, which joined 1995) joined the EU at a later time. Hungary, Slovakia, and Czech were part of the Eastern Bloc countries that adopted communism after World War II and joined the EU in 2004 (European Union, 2019).

It is interesting to compare these four countries because of their common history. The Dual Monarchy Austria-Hungary from 1867 to 1918, which Czech and Slovakia were part of, influences these countries to this day (Deak, 1990). Thus, it is important to analyze the historical and cultural impacts on social and health policy in terms of disability and autism in these countries.

Table 1
A Summary of the Eligibility Criteria.

Criteria	Specification
Inclusion	Scope related to the right to education, the national education systems, disability laws, inclusion, and special education needs. Aimed at those under 18 years of age. Documents drafted by a governmental institution. Publication date after 1948. Constitutions are included regardless of publication year. Documents in all languages were considered for inclusion.
Exclusion	Policies and actions by non-governmental organisations.

2. Methods

The policy mapping framework utilised in this paper is based on the work validated by EDUCAUS previously (Roleska et al., 2018; van Kessel, Roman-Urrestarazu, et al., 2019; van Kessel, Walsh, et al., 2019). More explicitly, the data were gathered through the use of a scoping review (Arksey & O'Malley, 2005; Levac, Colquhoun, & O'Brien, 2010) and analyzed through a policy path dependence analysis (Mahoney, 2000). Due to there not being a comprehensive data source in the EU on autism and SEN policy, a modular approach to legislative and policy work was adopted to analyse the different educational policy environments (Austrian, Hungarian, Czech, and Slovakian). The findings were reported using the PRISMA framework (Moher, Liberati, Tetzlaff, Altman, & PRISMA Group, 2009).

2.1. Eligibility criteria

The purposive selection of the countries is based on the needs of the policy mapping project of EDUCAUS. An overview of the eligibility criteria is shown in Table 1.

2.2. Data collection and search strategy

Like previous work by Authors' Consortium (Roleska et al., 2018; van Kessel, Roman-Urrestarazu, et al., 2019; Walsh, et al., 2019), the data collection consisted of five steps. This five-step process is depicted in Fig. 1. Subsequently, the exact build-up of the search query used for scientific databases is shown in Table 2. The data collection in this study took place between April 2019 and June 2019.

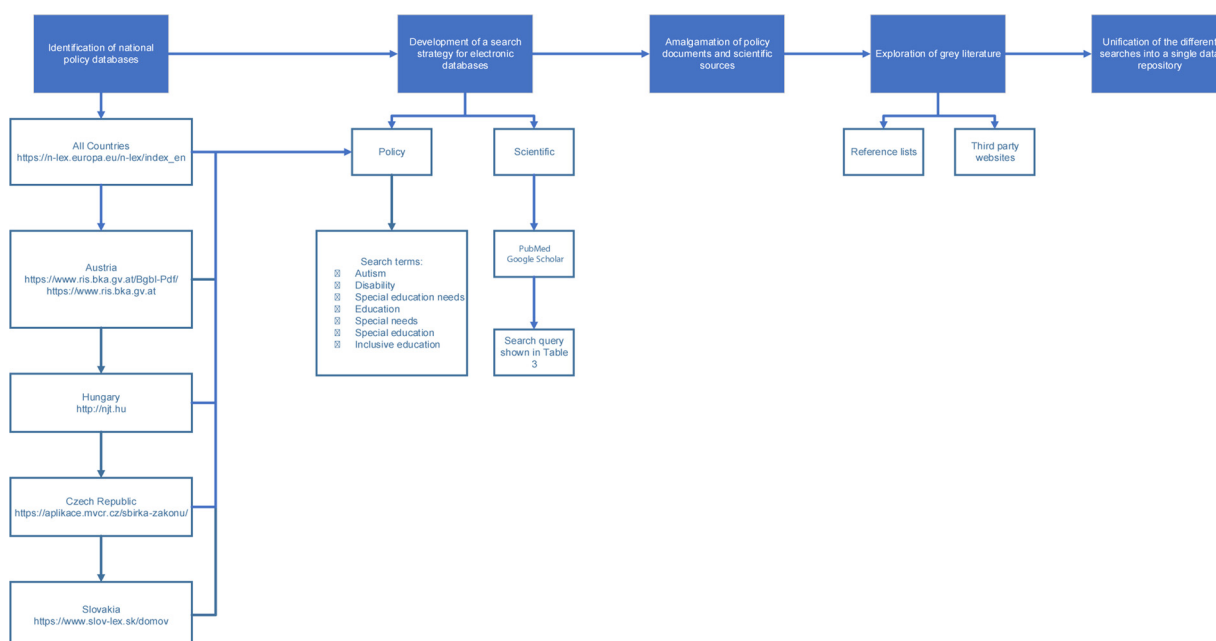


Fig. 1. An exact depiction of each step of the data collection process.

Table 2
The Build-up of the Final Search Query for Academic Databases.

	Search Query
S1	inclusion OR education
S2	autis* OR ASC OR ASD OR disability OR special educational needs OR SEN OR disab*
S3	policy OR legislation OR regulation OR law
S4	Austria OR Hungary OR (Czech OR Czech Republic) OR Slovakia
Final	(inclusion OR education) AND (autis* OR ASC OR ASD OR disability OR special educational needs OR SEN OR disab*) AND (policy OR legislation OR regulation OR law) AND (Austria OR Hungary OR (Czech OR Czech Republic) OR Slovakia)

2.3. Data analysis

After the search strategy was completed, the gathered data was compared to the data that was already gathered on UN and EU policy in the previous work of EDUCAUS (Roleska et al., 2018; van Kessel, Roman-Urrestarazu, et al., 2019; van Kessel, Walsh, et al., 2019). As a result, the extent to which the values of international policies are integrated in the national policies could be established.

To facilitate a comparative analysis, the policies found through the database searches were delineated to the values set out in international documents. This allowed us not only to determine the influence of international guidance on national policy, but also frame the results in a way that the different countries under study can be compared with one another. Four core values are used in the analysis: (1) right to education for all children (UDHR and Salamanca Statement); (2) appropriate/adapted education for children with SEN (Declaration on the Rights of Disabled Persons and the CRPD); (3) appropriate treatment corresponding to the child's condition (Declaration and Convention on the Rights of the Child); and (4) development of inclusive education (CRPD).

3. Results

Through the database search for legal governmental documents 3012 sources were identified. After screening for title, 432 documents were included from which 62 were duplicates. After screening the policies, 286 documents were removed from which 22 were unreadable documents from Czech. Overall, 84 policy documents were included and fully assessed. Additionally, 321 articles were found through the database searches from PubMed and Web of Science. From these, 24 sources were included after title screening. Eight duplicates were removed. After screening the abstract twelve articles were excluded as they did not meet the scope of this study. All in all, four journal articles were incorporated. Furthermore, eleven documents were detected through reference searches. On the whole, 99 sources were analysed in this study. For a better overview, an adapted PRISMA flowchart illustrates the data collection process in Fig. 2. Subsequently, a chronological overview of the included policies per country is shown in Supplementary File 1 and a reference list of the data used is included in Supplementary File 2.

3.1. Austria

The State Treaty indicated that human rights of all people have to be respected prior to the ratification of the UDHR through the 'Bundesverfassungsgesetz' that implemented the right to education for all children. The adaptation of education for children with SEN is reflected in the combination of the 1993 School Organisation Act and the Compulsory Education Act. Appropriate treatment of a child's condition—while never explicitly stated—is part of the integration of the Convention on the Rights of the Child in Austrian law. Finally, all policy actions from 2012 onward aim to develop inclusive education as set out in the CRPD.

Austria has no autism-specific policies. However, there are several important policies which address children with SEN. In Austria, education is the responsibility of the state. The federal states are responsible for the provision of education in primary, lower secondary and special schools. Higher secondary and vocational education remains the responsibility of the state (Republic of Austria, 2019).

Aside from that, Austria participates in European projects as 'Mapping the implementation of policy for inclusive education (MIPIE)' and 'Teacher education for inclusion across Europe' that aim to identify what qualitative and quantitative information needs to be gathered for policy makers in order to facilitate the development of policy surrounding inclusion and teacher education, what information is already available, and what gaps in information still exist (European Agency for Special Needs & Inclusive Education, 2019c, 2019c).

In the Directive for the Establishment of Inclusive Model Regions (Republic of Austria, 2015), Kärnten, Tirol, and Steiermark were the three provinces chosen to pioneer the implementation of the CRPD as model regions. The Action Plan to implement the CRPD in Steiermark consists of nine guidelines representing the article of the CRPD and are implemented in three phases (Federal state Steiermark [Austria], 2012, 2015, 2018). To improve inclusive education, 18 measures were developed from which 17 were completely implemented in 2018, including seminars on autism for teachers in general schools. One means to enhance the self-determined living of people with disability is the 'Autism Concept Steiermark'. However, this rather applies to adults as it aims to get a better overview of the support system in order to provide best possible care for people with autism. This measure was realised in 2018.

Kärnten introduced a Stage Plan to Implement the CRPD 2015–2020 which is built on the same guidelines as the Action Plan of Steiermark (Federal state Kärnten [Austria], 2019). Kärnten developed three means to evolve inclusive education. These measures

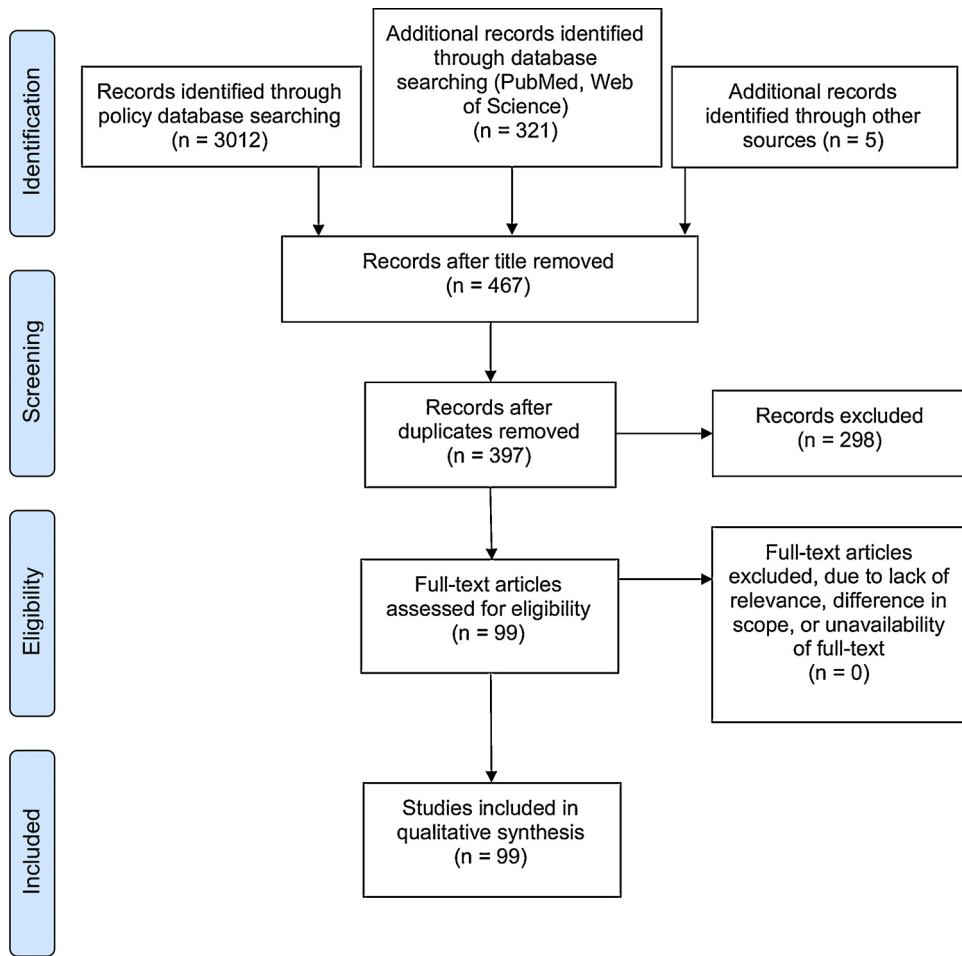


Fig. 2. Overview of the data collection process. Author's own compilation based on the PRISMA flowchart.

consist of (1) the establishment of two inclusive model regions; (2) the production of a guideline for the promotion of school assistance for children with autism; and (3) the development of small cooperative classes in compulsory education. Since the school year 2014/15 children with autism are given effective, personalised support in the general education system. Moreover, a special project which is addressing persons with autism was founded. As there are not enough resources and facilities to care for people with autism to some extent people have to move to other federal states. This has negative consequences as the distance leads to less contact with family and other important social contacts. For this target group, further housing and employment offers in Kärnten are created. A social-therapeutic housing project for children and adolescents has already been implemented, a housing project for adult people which is specifically geared towards their needs is being planned.

The implementation of the inclusive model regions in Tirol is characterised by the development of ten 'Pedagogical Advisory Centres' (Federal state Tirol [Austria], 2016). These centres are responsible for the provision and coordination of special needs education in other types of schools to ensure that children with SEN can be taught in the best possible way in general schools. At the beginning of the school year 2016/2017, pedagogical advisory centres were set up in all educational regions of Tirol. The aim of the measure is to improve the quality of inclusive education and thus to gradually increase inclusive education. In addition, the supervision and support for teachers is improved. In 2014, a monitoring committee was established which, as an independent body, observes the implementation of the CRPD in Tirol (Federal state Tirol [Austria], 2015). In 2018, the Tirol Participation Act came into force (Federal state Tirol [Austria], 2018). The aim of this act is to contribute to the realisation of an inclusive society and to enable people with disabilities to lead a self-determined life. Paragraph 9 explicitly mentions educational support services for people with autism. It distinguishes between individual and group support services. Individual support helps to develop cognitive, linguistic, mental, and social skills. Besides, group support assists to train social skills through interaction with other people. This Act is the only legislation in Austria which explicitly addresses people with autism. In 2016, Austria ratified Decree on the Curricula of Primary, Secondary and Special Schools (Republic of Austria, 2016), which expanded the development of inclusive education beyond the three model regions into the rest of Austria.

All three federal states stress in their strategies international (UDHR, CRC, CRPD) and EU (European Disability Strategy 2010–2020) policies and customise their guidelines towards them. In addition, they take the interdependence between national,

federal and regional level into account. Even though Austria is a federal republic, the federal states have little power in terms of education policies. However, they decide how to implement national policies. The National Disability Strategy 2012–2020 gives them more leeway which is an appropriate measure as it is the federal states' responsibility to implement the inclusive education system. Furthermore, it allows identifying best practices to realise inclusion in all over Austria. Apart from Tirol there is not legally binding legislation which is mentioning autism. However, the Austrian education and disability policies mostly cover the SEN of children with autism. As there are strategies to improve the life of people with autism mentioned in the action plans of Steiermark and Kärnten the need of special support becomes apparent which could lead to further legislation. In summary, Austria clearly wants to implement the CRPD and therefore one can assume that more policies to realise an inclusive society will be passed.

3.2. Hungary

The right to education for all children in Hungarian law through the Convention on the Rights of the Child—a direct implementation from the international document—and the Public Education Act. The latter also addressed the adaptation of education for children with SEN and the possibility to be educated in special schools, special classes in mainstream schools, or general classes, on top of establishing the necessity for appropriate treatment that corresponds to the child's condition. Elements of inclusion have been in place since the Public Education Act. More recently—policies from 2005 onward—there has been a larger focus on the development of inclusive education.

According to the European Agency for Special Needs and Inclusive Education, Hungary introduced a postgraduate specialist training course on 'Autism spectrum disorder pedagogy' in 2009 (European Agency for Special Needs & Inclusive Education, 2019b). In addition, Hungary was the first country in Europe which offered since the academic year 2012/13 bachelor's degree students to pursue an autism pedagogy specialisation course. In short, one can say that Hungary follows a progressive disability strategy. Even though it does not clearly distinguish between integrative and inclusive education, Hungary always followed an integrative education path. None of the Public Education Acts mentioned that children with SEN have to be educated in special schools or classes. Instead, children always had the right to be educated in general schools. Finally, Hungary is also listed as a contributor to the MIPIE project (European Agency for Special Needs & Inclusive Education, 2019c).

3.3. Czechoslovakia (until 1990)

Before mapping the respective policies of Slovakia and Czech, it is necessary to briefly explain their common history and establish policies from the former Czechoslovakia (Stolarik, 2016). After the decomposition of Austro-Hungarian Empire after the First World War, the First Czechoslovak Republic (1918–1939) as a unified state was founded (Miškolci, 2016). Even though it passed its own education policies, it took over the centralised public administration system of the Austro-Hungarian Monarchy and the authority about education laid with the state (Hoetzel & Joachim, 1920). With the exception of Subcarpathian Ruthenia, pre-war Czechoslovakia was re-established after the Second World War. Decades later, after Czechoslovakia was split into its constituent countries (Czech and Slovakia), they joined the EU in 2004 (European Union, 2019).

The right to education was part of the Constitution of Czechoslovakia and thus immediately implemented upon ratification. The Decree on Education Counselling infers that educational approaches could be adapted by stating that children with SEN and educational staff could be counselled. Regardless, the adaptation of education was not explicitly stated until the implementation of the Education Act—which also addressed the fact that a child's condition should be appropriately treated in-classrooms so the child could develop itself optimally. Inclusion, even though mentioned, referred to the uptake of children with SEN in mainstream classes and providing additional support out-of-class, thus referring to the dimension of integration of the UN model (Hehir et al., 2016).

3.3.1. Czech Republic

Following the separation of Czechoslovakia into Czech and Slovakia, each country started to further develop their education system. In Czech, this resulted in the implementation of policies that were founded on the values of international policies and guidelines. As a result, an education system that fosters inclusion where possible was developed.

By implementing the Convention on the Rights of the Child in Czech law, the right to education for all children remained ensured after the division of Czech and Slovakia. This right was further emphasized by the Education Act, along with the value on appropriate treatment of a child's condition and adaptation of education for children with SEN. Inclusion practices are being developed since 2005. Finally, Czech is listed as one of the contributors to the MIPIE project (European Agency for Special Needs & Inclusive Education, 2019c).

3.3.2. Slovakia

The translation of the Convention on the Rights of the Child ensured the continuation of the right to education for all children in Slovakia after its separation. The Education Act reinforced this right and subsequently established adaptations to the education environment to facilitate children with SEN. Appropriate treatment corresponding to the child's condition is inferred in the Education Act given its focus to deliver education "according to the needs and capacities of the child." Finally, the development of inclusive education started with the implementation of the CRPD and the 2014 Strategy, though it remains in its infancy. Notably, Slovakia currently has no policy in place to implement the values set out in the CRPD specifically.

4. Discussion

In line with previous research done in the policy mapping project of EDUCAUS, the UDHR was a critical juncture for the four countries under study—though the end of the communist era was too. It changed the political system in Hungary, Czech and Slovakia completely, creating democratic republics. The end of communism in Europe also led to a new dynamic in European integration. Austria joined the EU in 1995, Hungary, Czech and Slovakia in 2004 (European Union, 2019). In terms of education, the Salamanca Statement, CRC, CRPD, and European Disability Strategy 2010–2020 significantly impacted national policy-making and value systems. Especially the CRC and the Salamanca Statement facilitated the shift from an integrative to an inclusive perspective. This paper also investigated teacher-related policies and found that teachers are assigned great responsibilities through national policies, though how teacher education and additional assistance for teachers are regulated differs per country.

All four countries passed important education policies after the ratification of the CRC and the Salamanca Statement. The first legally binding legislation for inclusive education in Austria was the 1993 School Organisation Act. In 2012, Austria published the National Action Plan on Disability 2012–2020, aimed to implement the CRPD and European Disability Strategy 2010–2020. The disability strategies from Tirol, Kärnten, and Steiermark also mention the CRPD and the European Disability Strategy 2010–2020. Hungary manifested inclusive education with the Public Education Act and all legislation firmly reassured the rights of the child—indicating the impact of the CRC. After Hungary joined the EU, the Directive on SEN was passed which is key for SEN education—particularly autism. Hungary also amended the Directive on SEN according to the CRPD, while the Hungarian National Disability Programme 2015–2025 is based on the CRPD and the European Disability Strategy 2010–2020. Compared to other EU countries, Czech and Slovakia passed respective education legislation late. Czech passed the Education Act in 2004 and Slovakia in 2008. This was partially due to the political changes in the value and economical system after the dissolution of Czechoslovakia. The importance of the EU accession for both countries shows in their Education Acts. Both emphasised that a fundamental principle of education is the knowledge and understanding of European values, traditions, and principles resulting from European integration. Slovakia enabled children to receive inclusive education in its Education Act, though the 2003 Decree on Special Schools already introduced inclusive language. Czech ratified the CRPD and passed the Act on Implementing EU Legislation in 2009—found in the National Plan for the Creation of Equal Opportunities for Persons with Disabilities 2010–2014. In 2014, the Education Act finally established the right to inclusive education for children with SEN. Czech continues to improve its inclusive education system, publishing the National Plan for the Creation of Equal Opportunities for Persons with Disabilities 2015–2020 to implement the CRPD further.

The education policies in the countries under study were not only in line with the values set out in key UN documents, such as the UDHR, CRC, and CRPD, but also adopted specific points set out by the Council of Europe on the education and social inclusion of children with autism (Council of Europe, 2009). All countries under study adopted legislation and policies that facilitated social integration, promoted the development and independence of children with autism, and prohibit discrimination on the basis of disability. They also provided a legal framework that ensures the rights of children with autism to receive education in mainstream education where possible. Specific training programs for teachers are found in Hungary, whereas Austria, Czech, and Slovakia only assert that teachers are required to participate in life-long learning to maintain and develop their competences in working with children with disabilities, including autism.

All four countries guarantee equality of people and the fundamental right to equal and free education for all in their constitutions. For education policies, it can be noted that all countries have a three-stream approach towards education for children with SEN. They can attend special schools (segregation), special classes in mainstream schools (integration), or mainstream classrooms (inclusion). Even though the aim is an inclusive school system, special schools for children that cannot participate in mainstream education are retained. Hungary underlined that children with SEN should be happy in inclusive education. In all four countries, schools should provide children with SEN with education resources, facilities, and materials appropriate to their condition.

Of the four reviewed countries, Hungary has the most progressive autism-specific education policies. The Decrees from 2005 and 2012 on Special Needs Education for Pupils provide detailed rules for the education of children with autism and acknowledge autism as a condition—not only as a medical disorder. They are entitled to various support measures to achieve successful education and development. The Slovakian Education Act states that schools have to follow an education programme for children with autism which is part of the national education programme. On a federal level, Austria has no national autism-specific policies, though inclusion policies are also applicable for children with autism. The three established model regions for inclusive education, Kärnten, Steiermark and Tirol all developed autism-specific strategies that go beyond education into general challenges, general support, facilities, and housing to improve the quality of life of people with autism as a whole (Federal state Kärnten [Austria], 2019; Federal state Steiermark [Austria], 2018; Federal state Tirol [Austria], 2018). Tirol is the only federal state in Austria which has autism-specific legislation (Federal state Tirol [Austria], 2018). Even though Czech policies do not address autism specifically, they still apply to children with autism.

Teachers have tremendous responsibilities in the reviewed countries—even more so for children with SEN. Overall, the rights and duties of the educational staff are very similar in all countries. During the communist era, teachers were obliged to follow its ideology in Hungary, Czech, and Slovakia. The fall of this regime highlights the change of the value system. As recommend (Boyle et al., 2011), all four countries introduced counselling and support facilities to support their educational staff. Since the 2008 Education Act, teachers in Slovakia need to follow specific education programmes for children with SEN. Mainstream schools that educate children with SEN have to employ teachers specialised in special needs education and school psychologists. Czech established advisory services that develop appropriate support tools and provide methodological support for teachers in schools. In Hungary, education staff are assisted, consulted and trained by expert groups (Republic of Hungary, 2011). Austrian pedagogical services responsible for

supporting and supervising teachers were also established (Republic of Austria, 2017). In terms of training, teachers have the right and obligation to further education in all four countries. In addition to the provision of training for SEN education, Hungary also offers further training on education for students with autism (European Agency for Special Needs & Inclusive Education, 2019b). Although a positive attitude of teachers towards inclusion is key, it is not addressed in the education policies yet (Boyle et al., 2011; Leatherman & Niemeyer, 2005).

Austria has emerged as the most progressive country in this analysis in terms of implementation of the CRPD and inclusion. Austria examines how people with disabilities can be admitted as teachers and how teacher training has to be adapted. Thus, four years after the ratification of the CRPD Austria does not question *whether* an inclusive school system shall be established but *how* it can be built best. In contrast, Slovakia has yet to implement a general inclusion strategy, though this could also be a consequence of the costs paired with changing policy paths as establishing inclusion is linked with many costs (Norwich, 2002). This would also serve as explanation as to why Slovakia is the only country under study to not contribute to the MIPIE project. Hungary has the most autism-specific education policies, though the extent of their implementation is worth an analysis of its own. Czech, Hungary, and Slovakia have a relatively large Roma community which might not benefit from these inclusion policies (Brüggemann, 2012; Messing, 2017; Rostas & Kostka, 2014). Furthermore, Hungary currently undergoes a continuous trend of a decreasing democracy (Szikra, 2014) and is only on the global democracy rank 55. Czech and Slovakia are also considered flawed democracies, though both countries have a higher global democracy rank (Czech 32, Slovakia 42) (Economist Intelligence Unit, 2020). The question remains how far policies are actually implemented.

Findings of this paper also support the results of a previous Authors' Consortium study, in which the effects of international guidance on small states in the EU was explored (van Kessel et al., n.d.) [in press]. In this study, Slovakia fits their description of small states, which are "states that not only have a small population size, but also are not in a position to influence the international policy environment on their own and are, by extension, largely dependent on the decisions of larger states and overarching political structures." They state that, even though tension can arise in the field of health policy, this is not the case in education policy. In education policy, guidelines that are set out in internationally are translated to national policy with minimal tension, if any at all. The findings of this paper further support this claim, as the values set out by international guidance (e.g. the UDHR, CRC, and CRPD) have been translated directly to national policy of small and large EU Member States alike.

This study has several limitations. In general, a high risk of scoping reviews is a researcher bias (Anderson, Allen, Peckham, & Goodwin, 2008; Morse, 2015). Within this study, there is a risk of researcher bias because the mother tongues of one of the lead authors is German. Austrian policies may be analysed in a more detailed way than policies from Czech, Hungary and Slovakia. However, since the other lead author's mother tongue is Dutch, this functioned as a safeguard for asymmetrical analyses of Austrian policies compared to other countries. To counteract this further, country experts from Hungary and Slovakia reviewed the results of their respective countries. An expert of Czech could not be found, which may impact the completeness of Czech policy data. Furthermore, as the method of this study was a scoping review, the results cannot be generalised across Europe. That being said, it is still possible to identify good practices highlighted in the countries under study and translate that to another setting after accounting for policy and cultural environments, among others. Another limitation of this paper is the translation of both the key phrases from English to Hungarian, Czech, and Slovakian respectively and the Hungarian, Czech, and Slovakian policy texts into English. For the initial translation of these documents, online translators were used. However, these are not always accurate and could have led to important legislation being missed or policy texts being misinterpreted. To mitigate this limitation, country experts verified the completeness and correctness of the policy data, leaving only the Czech data at risk of this limitation. As for the analysis of inclusion policies, the specific semantic meaning of "inclusion" is of high importance, thus translation carries a risk. Furthermore, it cannot be guaranteed that all important legislations have been identified. Moreover, all databases were electronic databases. Some policy documents might not have been digitalised and are missing in this data collection. Finally, this paper only analysed primary and secondary education policies for children with SEN. However, tertiary education policies are also very important for the equal access to education. Thus, this paper only contributes to the analysis of the education of children and does not give an overall picture of the education policies for persons with SEN.

Ultimately, by mapping policies which are relevant for children with SEN in Austria, Hungary, Czech and Slovakia this study provides important information about the access to education for children with autism. It becomes evident that all four reviewed countries have adequate SEN policies in force. However, there are disparities in the level of policy development between the four countries. Austria has the most progressive policies to implement the CRPD. Hungary and Czech also have effective strategies in place. Slovakia, on the other hand, still lacks strategies for implementing the CRPD. Critical junctures not only influenced the paths of policy-making but also changed the perception of disability and autism.

Ethics approval and consent to participate

Due to all data being publicly available and already in force in the respective Member States, the outcomes of this study have no ethical implications. Also, since the study was completely based off of public data, there was no situation in which it was necessary to request consent. Finally, neither sample sizes nor major demographic characteristics (aside from population size) were applicable to the study at hand. As such, these are not reported.

Availability of data and material

While all data are publicly available, a list of used documents along with their source has been included.

Funding

Removed for blinding purposes.

Author contributions

All authors contributed equally in their respective ways. Author A and Author B were in charge of writing and editing the manuscript. All other authors reviewed the manuscript in its different stages and provided their input respectively, mainly taking care of the correct interpretation of the original language used in the legislation, as well as accounting for documents that were missed during the initial search by the lead authors.

CRediT authorship contribution statement

Robin van Kessel: Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Data curation, Visualization, Project administration. **Paula Steinhoff:** Conceptualization, Investigation, Data curation, Writing - original draft, Writing - review & editing. **Orsolya Varga:** Validation, Writing - review & editing. **Dagmar Breznová:** Validation, Writing - review & editing. **Katarzyna Czabanowska:** Validation, Writing - review & editing, Supervision. **Carol Brayne:** Validation, Writing - review & editing. **Simon Baron-Cohen:** Validation, Writing - review & editing, Funding acquisition. **Andres Roman-Urrestarazu:** Validation, Writing - review & editing, Supervision, Project administration, Funding acquisition.

Declaration of Competing Interest

There are no competing interests between the collaborating authors in this study.

Acknowledgements

This work was supported by the Gillings Fellowship in Global Public Health and Autism Research (grant award YOG054) and the Innovative Medicines Initiative 2 Joint Undertaking (grant agreement 777394). We would like to thank the anonymous reviewers for contributing to the improvement of this manuscript.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.ridd.2020.103734>.

References

- Anderson, S., Allen, P., Peckham, S., & Goodwin, N. (2008). Asking the right questions: Scoping studies in the commissioning of research on the organisation and delivery of health services. *Health Research Policy and Systems*, 6, 1–12. <https://doi.org/10.1186/1478-4505-6-7>.
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. <https://doi.org/10.1080/1364557032000119616>.
- Baron-Cohen, S. (2017). Editorial Perspective: Neurodiversity-a revolutionary concept for autism and psychiatry. <https://doi.org/10.1111/jcpp.12703>.
- Billstedt, E., Gillberg, C., & Gillberg, C. (2011). Aspects of quality of life in adults diagnosed with autism in childhood: A population-based study. *Autism*, 15(1), 7–20. <https://doi.org/10.1177/1362361309346066>.
- Boyle, C., Scriven, B., Durning, S., & Downes, C. (2011). Facilitating the learning of all students: The “professional positive” of inclusive practice in Australian primary schools. *Support for Learning*, 26(2), 72–78. <https://doi.org/10.1111/j.1467-9604.2011.01480.x>.
- Boyle, C., Topping, K., & Jindal-Snape, D. (2013). Teachers' attitudes towards inclusion in high schools. *Teachers and Teaching*, 19(5), 527–542. <https://doi.org/10.1080/13540602.2013.827361>.
- Brüggemann, C. (2012). *Policy brief: Roma education in comparative perspective. Analysis of the UNDP/ World Bank/ EC*.
- Cervantes, P. E., Matson, J. L., & Goldin, R. L. (2016). *Diagnosing ASD in Very Early Childhood*. 157–173. https://doi.org/10.1007/978-3-319-27171-2_9.
- Charman, T., Loth, E., Tillmann, J., Crawley, D., Wooldridge, C., Goyard, D., et al. (2017). The EU-AIMS Longitudinal European Autism Project (LEAP): Clinical characterisation. *Molecular Autism*, 8(1), 27. <https://doi.org/10.1186/s13229-017-0145-9>.
- Convention on the Rights of Persons with Disabilities (2006). *Convention on the Rights of Persons with Disabilities*. <http://www.ohchr.org/EN/HRBodies/CRPD/Pages/ConventionRightsPersonsWithDisabilities.aspx#3>.
- Costello, S., & Boyle, C. (2013). Pre-service Secondary Teachers Attitudes Towards Inclusive Education. *Australian Journal of Teacher Education*, 38(4), <https://doi.org/10.14221/ajte.2013v38n4.8>.
- Council of Europe (2009). *Recommendation CM/Rec(2009)9 of the Committee of Ministers to member states on the education and social inclusion of children and young people with autism spectrum disorders*. https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805d046f.
- Croen, L. A., Zerbo, O., Qian, Y., Massolo, M. L., Rich, S., Sidney, S., et al. (2015). The health status of adults on the autism spectrum. *Autism*, 19(7), 814–823. <https://doi.org/10.1177/1362361315577517>.
- Deak, I. (1990). *Beyond Nationalism: A Social and Political History of the Habsburg Officer ... - Istvan Deak - Google books*.
- Economist Intelligence Unit (2020). *Democracy Index 2019: A year of democratic setbacks and popular protest*. <https://www.eiu.com/Handlers/WhitepaperHandler.ashx?fi=Democracy-Index-2019.pdf&mode=wp&campaignid=democracyindex2019>.
- EDUCAUS (2019a). *European Consortium for Autism Researchers in Education*. <https://www.educaus.eu/>.
- EDUCAUS (2019b). *Objectives and Coverage*. <https://www.educaus.eu/objectives-and-coverage.html>.
- Eldar, E., Talmor, R., & Wolf-Zukerman, T. (2009). International Journal of Inclusive Education Successes and difficulties in the individual inclusion of children with Autism Spectrum Disorder (ASD) in the eyes of their coordinators. *International Journal of Inclusive Education*, 14(1), 97–114. <https://doi.org/10.1080/13603110802504150>.
- European Agency for Special Needs and Inclusive Education (2019a). *Teacher education for inclusion across Europe – Challenges and opportunities*.

- European Agency for Special Needs and Inclusive Education (2019b). *Country information for Hungary: Teacher education for inclusive education*.
- European Agency for Special Needs and Inclusive Education (2019c). *Mapping the Implementation of Policy for Inclusive Education*.
- European Union (2019). *The history of the European Union*.
- Federal state Kärnten [Austria] (2019). *Landesetappenplan 2014 - 2020*.
- Federal state Steiermark [Austria] (2012). *Umsetzung der UN-Behindertenrechtskonvention. Aktionsplan des Landes Steiermark. Phase 1: 2012-2014*.
- Federal state Steiermark [Austria] (2015). *Umsetzung der UN-Behindertenrechtskonvention. Aktionsplan des Landes Steiermark. Phase 2: 2015-2017*.
- Federal state Steiermark [Austria] (2018). *Umsetzung der UN-Behindertenrechtskonvention. Aktionsplan des Landes Steiermark. Phase 3: 2018-2012*.
- Federal state Tirol [Austria] (2015). *Inklusive Bildung in Tirol. Eine Stellungnahme des Tiroler Monitoringausschusses zur Überwachung der UN-Konvention über die Rechte von Menschen mit Behinderungen*.
- Federal state Tirol [Austria] (2016). *Pädagogische Beratungszentren: PBZ. Modell Tirol*.
- Federal state Tirol [Austria] (2018). *Tiroler Teilhabegesetz (32/2018)*.
- Gurney, J. G., Mcpheeters, M. L., & Davis, M. (2006). *Parental Report of Health Conditions and Health Care Use Among Children With and Without Autism Article in Archives of Pediatrics and Adolescent Medicine. Child Care Center Illness Policies View project Outcomes and Survivorship in Childhood Cancer View*<https://doi.org/10.1001/archpedi.160.8.825>.
- Harrower, J. K., & Dunlap, G. (2001). *Children with autism can benefit from participation in inclusive classroom environments Including Children With Autism in General Education Classrooms A Review of Effective Strategies*. Dunlap / CLASSROOM INCLUSION.
- Hehir, T., Grindal, T., Freeman, B., Lamoreau, R., Borquaye, Y., & Burke, S. (2016). *A summary of the evidence on inclusive education*.
- Hoetzel, J., & Joachim, V. (1920). *The constitution of the Czechoslovak Republic*.
- Lai, M.-C., Lombardo, M. V., & Baron-Cohen, S. (2014). Autism. *Lancet*, 383(9920), 896–910. [https://doi.org/10.1016/s0140-6736\(13\)61539-1](https://doi.org/10.1016/s0140-6736(13)61539-1).
- Leatherman, J. M., & Niemeier, J. A. (2005). Teachers' Attitudes Toward Inclusion: Factors Influencing Classroom Practice. *Journal of Early Childhood Teacher Education*, 26(1), 23–36. <https://doi.org/10.1080/10901020590918979>.
- Lee, L.-C., Harrington, R. A., Louie, B. B., & Newschaffer, C. J. (2008). Children with Autism: Quality of Life and Parental Concerns. *Journal of Autism and Developmental Disorders*, 38(6), 1147–1160. <https://doi.org/10.1007/s10803-007-0491-0>.
- Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*, 5(1), 69. <https://doi.org/10.1186/1748-5908-5-69>.
- Loomes, R., Hull, L., & Mandy, W. P. L. (2017). What Is the Male-to-Female Ratio in Autism Spectrum Disorder? A Systematic Review and Meta-Analysis. *Journal of the American Academy of Child and Adolescent Psychiatry*, 56(6), 466–474. <https://doi.org/10.1016/j.jaac.2017.03.013>.
- Lynch, S. L., & Irvine, A. N. (2009). Inclusive education and best practice for children with autism spectrum disorder: An integrated approach. *International Journal of Inclusive Education*, 13(8), 845–859. <https://doi.org/10.1080/13603110802475518>.
- Mahoney, J. (2000). Path dependence in historical sociology. *Theory and Society*, 29(4), 507–548. <http://webarchiv.ethz.ch/soms/teaching/OppFall09/MahoneyPathDependence.pdf>.
- Messing, V. (2017). Differentiation in the making: Consequences of school segregation of Roma in the Czech Republic, Hungary, and Slovakia. *European Education*, 49(1), 89–103. <https://doi.org/10.1080/10564934.2017.1280336>.
- Miškolci, J. (2016). Inclusive education in the Slovak Republic two decades after the dissolution of Czechoslovakia. *International Journal of Inclusive Education*, 20(2), 199–213. <https://doi.org/10.1080/13603116.2015.1079272>.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *BMJ (Clinical Research Ed)*, 339, b2535. <https://doi.org/10.1136/BMJ.B2535>.
- Monsen, J. J., Ewing, D. L., & Kwoka, M. (2014). Teachers' attitudes towards inclusion, perceived adequacy of support and classroom learning environment. *Learning Environments Research*, 17(1), 113–126. <https://doi.org/10.1007/s10984-013-9144-8>.
- Morse, J. M. (2015). Critical Analysis of Strategies for Determining Rigor in Qualitative Inquiry. *Qualitative Health Research*, 25(9), 1212–1222. <https://doi.org/10.1177/1049732315588501>.
- Newschaffer, C. J., & Curran, L. K. (2003). *Autism: An Emerging Public Health Problem. Public health reports, Vol. 118*.
- Norwich, B. (2002). Education, Inclusion and Individual Differences: Recognising and Resolving Dilemmas. *British Journal of Educational Studies*, 50(4), 482. <https://doi.org/10.1111/1467-8527.t01-1-00215>.
- Osborne, L. A., & Reed, P. (2011). School factors associated with mainstream progress in secondary education for included pupils with Autism Spectrum disorders. *Research in Autism Spectrum Disorders*, 5(3), 1253–1263. <https://doi.org/10.1016/j.rasd.2011.01.016>.
- Republic of Austria (2015). *Verbindliche Richtlinie zur Entwicklung von Inklusiven Modellregionen (17/2015)*.
- Republic of Austria (2016). 219. *Änderung der Verordnung über die Lehrpläne der allgemein bildenden höheren Schulen*.
- Republic of Austria (2017). *Bildungsreformgesetz 2017 (138/2017)*.
- Republic of Austria (2019). *Bundes-Verfassungsgesetz (B-VG)*.
- Republic of Hungary (2011). 2011. évi CXCV. *törvény a nemzeti köznevelésről*.
- Roleska, M., Roman-Urrestarazu, A., Griffiths, S., Ruigrok, A. N. V., Holt, R., van Kessel, R., McColl, K., Sherlaw, W., Brayne, C., & Czabanowska, K. (2018). Autism and the right to education in the EU: Policy mapping and scoping review of the United Kingdom, France, Poland and Spain. *PLOS ONE*, 13(8), Article e0202336. <https://doi.org/10.1371/journal.pone.0202336>.
- Rostas, I., & Kostka, J. (2014). Structural Dimensions of Roma School Desegregation Policies in Central and Eastern Europe. *European Educational Research Journal*, 13(3), 268–281. <https://doi.org/10.2304/eeerj.2014.13.3.268>.
- Ruijs, N. M., & Peetsma, T. T. D. (2009). Effects of inclusion on students with and without special educational needs reviewed. *Educational Research Review*, 4(2), 67–79. <https://doi.org/10.1016/j.edurev.2009.02.002>.
- Simonoff, E., Pickles, A., Charman, T., Chandler, S., Loucas, T., & Baird, G. (2008). Psychiatric Disorders in Children With Autism Spectrum Disorders: Prevalence, Comorbidity, and Associated Factors in a Population-Derived Sample. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47(8), 921–929. <https://doi.org/10.1097/CHI.0B013E318179964F>.
- Stolarik, M. M. (2016). *The Czech and Slovak Republics : Twenty Years of Independence, 1993–2013*. Central European University Press.
- Sumi, C., Marder, C., & Wagner, M. (2005). *The Social Adjustment of Elementary and Middle School Students with Disabilities*. https://seels.sri.com/designdocs/engagement/05_SEELS_outcomes_C5_10-3-05.pdf.
- Szikra, D. (2014). Democracy and welfare in hard times: The social policy of the Orbán Government in Hungary between 2010 and 2014. *Journal of European Social Policy*, 24(5), 486–500. <https://doi.org/10.1177/0958928714545446>.
- Treaty on the Functioning of the European Union (2009). *Treaty on the functioning of the European Union*. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012E/TXT>.
- United Nations (1948). *Universal Declaration of Human Rights* | United Nations.
- United Nations (1989). *Convention on the Rights of the Child*. <http://www.ohchr.org/Documents/ProfessionalInterest/crc.pdf>.
- United Nations Department of Economic and Social Affairs (2020). *Convention on the Rights of Persons with Disabilities (CRPD)*. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>.
- United Nations Educational Social and Cultural Organisation (1994). *The Salamanca Statement and Framework for Action. Policy*, (June), 7–10.
- van Kessel, R., Hrzic, R., Czabanowska, K., Baranger, A., Azzopardi-Muscat, N., Charambalous-Darden, N., Brayne, C., Baron-Cohen, S., & Roman-Urrestarazu, A. (n.d.). *Autism and Education—International Policy in Small EU States: Policy Mapping in Malta, Cyprus, Luxembourg, and Slovenia*.
- van Kessel, R., Roman-Urrestarazu, A., Ruigrok, A., Holt, R., Commers, M., Hoekstra, R. A., Czabanowska, K., Brayne, C., & Baron-Cohen, S. (2019). Autism and family involvement in the right to education in the EU: policy mapping in the Netherlands, Belgium and Germany. *Molecular Autism*, 10(1), <https://doi.org/10.1186/s13229-019-0297-x>.
- van Kessel, R., Walsh, S., Ruigrok, A. N. V., Holt, R., Yliherva, A., Kärnä, E., Moilanen, I., Hjörne, E., Johansson, S. T., Schendel, D., Pedersen, L., Jørgensen, M., Brayne, C., Baron-Cohen, S., & Roman-Urrestarazu, A. (2019). Autism and the right to education in the EU: policy mapping and scoping review of Nordic countries Denmark, Finland, and Sweden. *Molecular Autism*, 10(1), <https://doi.org/10.1186/s13229-019-0290-4>.